

Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1. (Original) A mixed metal oxide of the formula AXO_3 where
- A is at least one element selected from the elements of group 1, 2 and 3 of the periodic table,
- X is at least one element selected from the elements cerium (Ce) and the elements of group 4, 7, 13 and 14 of the periodic table,
and mixtures of such mixed metal oxides.

2. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein the particle size of the mixed metal oxide is in the nanoscale range.

3. (Currently Amended) The mixed metal oxide as claimed in claim 2, ~~characterized in that~~ wherein the particle size of the mixed metal oxide is < 100 nm, preferably < 50 nm.

4. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein the mixed metal oxide is doped.

5. (Currently Amended) The mixed metal oxide as claimed in claim 4, ~~characterized in that~~ wherein at least one element selected from the elements of group 3, 10, 11, 12 and 13 of the periodic table and the lanthanoids is present for doping.

6. (Currently Amended) The mixed metal oxide as claimed in claim ~~5~~ 4, ~~characterized in that~~ wherein the doping element is copper.

7. (Currently Amended) The mixed metal oxide as claimed in claim 4, ~~characterized in that~~ wherein the content of doping elements is between 0.01 and 20 atom%, preferably between 0.1 and 10 atom%, in particular between 1 and 6 atom%.

8. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein A is selected from the elements of group 2 of the periodic table, and is preferably barium (Ba).

9. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein A is lithium (Li).

10. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein A is lanthanum (La) or Yttrium (Y).

11. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein X is cerium (Ce).

12. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein X is titanium (Ti) or zirconium (Zr).

13. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein X is manganese (Mn).

14. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein X is indium (In).

15. (Currently Amended) The mixed metal oxide as claimed in claim 1, ~~characterized in that~~ wherein X is tin (Sn).

16. (Original) The mixed metal oxide as claimed in claim 1, with the formula $BaXO_3$ where X is cerium (Ce).

17. (Currently Amended) The mixed metal oxide as claimed in claim 16, ~~characterized in that~~ wherein the mixed metal oxide is doped, the doping element preferably being copper.

18. (Original) The mixed metal oxide as claimed in claim 1 preparable by the so-called single-source precursor technique.

19. (Currently Amended) ~~The use of the mixed metal oxides as claimed in claim 1 for method for detecting gases,~~ preferably for detecting incombustible gases, wherein the mixed metal oxides as claimed in claim 1 are used.

20. (Currently Amended) ~~The use method as claimed in claim 19, characterized in that~~ wherein the detected gas is carbon dioxide (CO₂).

21. (Currently Amended) The mixed metal oxide as claimed in claim 1 being, ~~characterized in that it is~~ applied to a substrate ~~and/or~~ incorporated into a substrate.

22. (Currently Amended) The mixed metal oxide as claimed in claim 21, ~~characterized in that~~ wherein the substrate is a substrate for sensors, in particular for gas sensors.

23. (Currently Amended) A sensor, preferably sensor for the detection of gases, ~~characterized in that it comprises~~ comprising a mixed metal oxide as claimed in claim 1, ~~and is~~ preferably being coated with ~~such a~~ mixed metal oxide as claimed in claim 1.

24. (Currently Amended) A process for preparing mixed metal oxides as claimed in claim 1, wherein ~~characterized in that~~ a mixed metal alkoxide whose stoichiometry and structure are adjusted to the mixed metal oxide to be prepared is prepared with the aid of the so-called single-source precursor

technique, and this mixed metal alkoxide, optionally after a doping step, is hydrolyzed to the mixed metal oxide.

25. (Original) A mixed metal alkoxide as an isolated intermediate in the process as claimed in claim 24.